



Lee County Utilities

Water Conservation Program

Patty DiPiero

Compliance & Public Information Officer

Lee County Utilities

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Lee County Utilities

Number of Meters

Water – 79,875

151,500 (ERU)

Wastewater – 58,249

112,025 (ERU)

Population

Approximately 300,000

Acquisitions

Florida Cities Water Company – 2000

Gulf Environmental Services - 2003

Geographic Size/Miles of Pipe

Water – 188 square miles/1,355 miles

Wastewater – 145 square miles/ 910 miles



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6 Water Treatment Plants – Total Capacity 41.8 MGD

3 – Traditional Water Supply

2 – Alternative Water Supply (AWS)

1 – Combination of AWS and Traditional

8 Wastewater Treatment Plants – Total Capacity 19.8 MGD

Purchase 11.5 mgd of capacity from the City of Ft. Myers

Per Capita Usage

118 gallons per day per person

“Unaccounted For”

Calendar year 2008 – 4.87%



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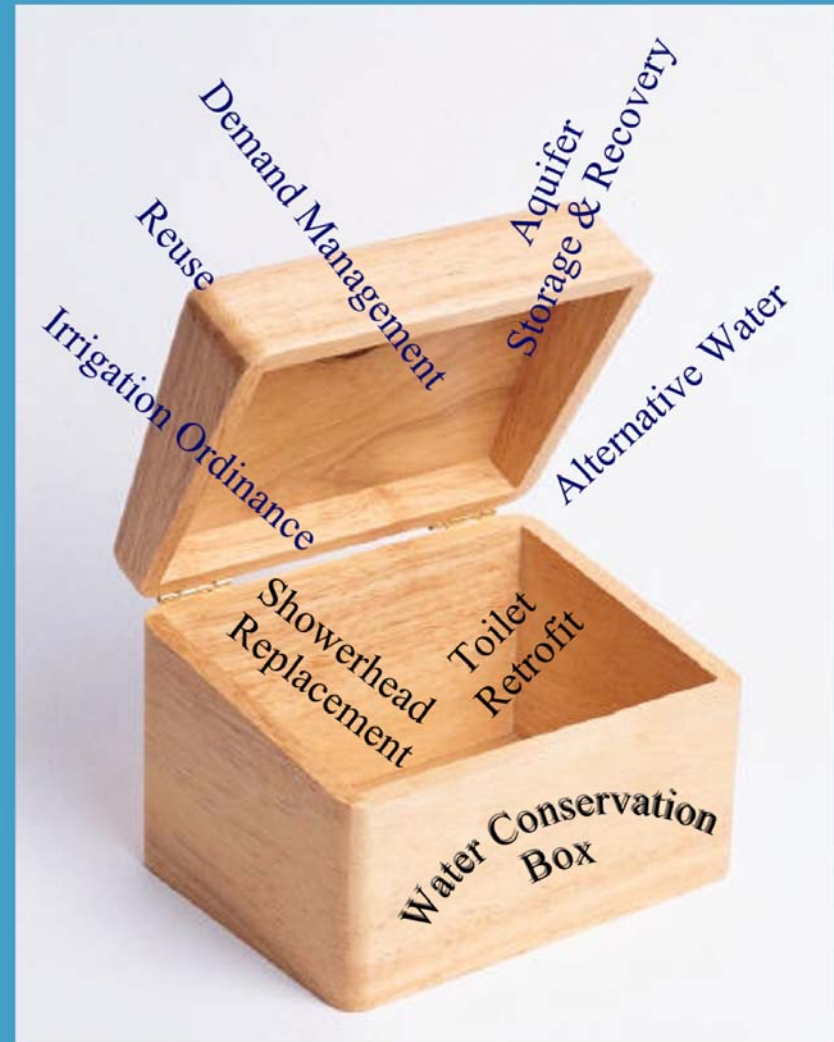
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Conservation - a careful preservation and protection of something ; planned management of a natural resource to prevent exploitation, destruction, or neglect
(Merriam-Webster)

Water Conservation should not always be a burden upon the end user, but should also begin with the source.

Thinking Outside of the Box



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Public Outreach

3rd Grade Water Conservation Program

Speaker's Bureau

LCU Website

Lee County Government Access Channel

Bill Stuffers and Statements on the Bills



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Ordinances & Land Development Code

Irrigation Ordinance

2-days a week

Went into effect in 2005

Ultra-low Volume Plumbing Fixture Ordinance

All new construction must use ultra-low fixtures

Went into effect in 1992

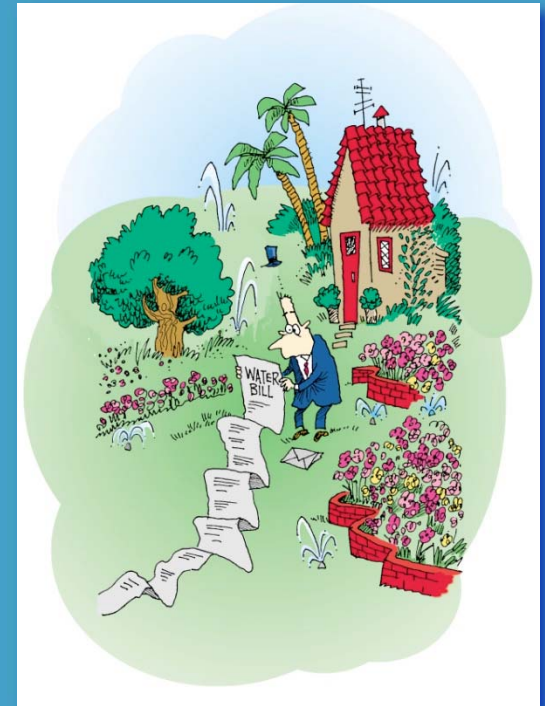
Xeriscape and Rain Sensors

Under Land Development Code

Rain Sensors were included in 1999

Increasing Block Rate Structure (Water rates adopted through Resolution)

Also allows for an 18% surcharge during water shortage declarations



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Alternative Water Supply

30% of LCU water supply is from AWS

North Lee – 5.5 mgd – Lower Hawthorn

Pinewoods – 5.3 mgd – Lower Hawthorn
(Nanofiltration & RO)

Corkscrew – 1.44 mgd – Lower Hawthorn

Future Expansions will include the use of the Lower Hawthorn

North Lee – 5.0 mgd

Green Meadows – 7.0 mgd Lower Hawthorn

Future concepts for Olga with innovative treatment

Utilize surface water during rainy season

Utilize Lower Hawthorn during the dry season



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Aquifer Storage and Recovery

Olga WTP ASR System

2 ASR Wells (Wells #1 & 5)

4 Cycles (only on well #1)

| Olga ASR | Injected (gallons) | Recovered (gallons) | % Recovery |
|----------|-----------------------|------------------------|------------|
| 2001 | 79,700,000 | 18,900,000 | 23.7% |
| 2002 | 129,020,400 | 35,093,900 | 27.2% |
| 2003 | 56,939,100 | 42,227,600 | 74.2% |
| 2004 | 92,936,800 | 71,864,800 | 77.3% |

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Aquifer Storage and Recovery

Corkscrew WTP ASR System

5 ASR Wells

8 Cycles

| Corkscrew ASR | Injected (gallons) | Recovered (gallons) | % Recovery |
|---------------|-----------------------|------------------------|------------|
| 2005 | 116,822,900 | 93,362,933 | 79.9% |
| 2006 | 316,302,000 | 193,030,000 | 61.0% |
| 2007 | 303,419,200 | 229,393,200 | 75.6% |
| 2008 | 277,035,000 | 198,030,800 | 71.5% |

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The Future for ASR in Lee County

Untreated SW and GW

Including stormwater

Reclaimed Water

Conjunctive Use

Storage of multiple sources depending on availability at that time

Aquifer Storage Transfer Recovery (ASTR)

Injection wells are separate from the recovery wells

Use of Non-USDW (Underground Source of Drinking Water)

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Reclaimed Water

LCU's permitted wastewater capacity is 19.8 mgd

Reclaim produced - 10.86 mgd (AADF)

Reclaimed Utilized – 8.4 mgd (AADF)

Almost 80% of our permitted capacity is used for reclaim water

Interconnects

Interconnected our Fiesta Village and Ft. Myers Beach

WWTPs

Interconnect with the City of Cape Coral to reduce discharges to the Caloosahatchee River.

In order to meet future demands will need to be supplemented - Will reuse become as expensive to use as potable? Will it really offset potable supply? What will legislation bring?



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Questions

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